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FINAL
SAFETY ELEMENT

June 1982

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ROBERT W. SANDY, DIRECTOR, MONO COUNTY PLANNING DEPARTMENT
P.O. BOX 8, BRIDGEPORT, CA 93517



RESOLUTION NO. 82-91
BOARD OF SUPERVISORS, COUNTY OF MONO

A RESOLUTION OF THE BOARD OF SUPERVISORS,
COUNTY OF MONO, STATE OF CALIFORNIA,
ADOPTING A SAFETY ELEMENT AND ENVIRONMENTAL
IMPACT REPORT TO THE GENERAL PLAN AND FIND-
INGS THAT SAID ACTION WILL NOT HAVE A
SIGNIFICANT EFFECT ON THE ENVIRONMENT

WHEREAS, the State of California mandates that all counties
and cities shall prepare and adopt a Safety Element; and,

WHEREAS, Mono County in compliance with the General Plan
extension granted by the State Office of Planning and Research
has caused to be prepared documents entitled "Mono County Safety
Element" and Environmental Impact Report; and,

WHEREAS, the Mono County Planning Commission did on March
24, 1982 adopt the Safety Element and Environmental Impact Report
as amended for transmittal to the Board of Supervisors with
recommendation for adoption, and found that the preparation and
subsequent adoption will not have a significant impact upon the
environment; and,

WHEREAS, the Board of Supervisors of the County of Mono did
on the 15th day of June, 1982, hold noticed and advertised public
hearings to hear all testimony relevant to said plan:

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors
of the County of Mono does hereby certify that the Final Environ-
mental Impact Report for the Safety Element, including all
comments and responses was prepared in compliance with the
California Environmental Quality Act;

BE IT FURTHER RESOLVED that the Board of Supervisors of the
County of Mono does hereby approve and adopt the Safety Element
and Environmental Impact Report as amended and determines that
preparation and subsequent adoption thereof will not have a
significant impact on the environment.

PASSED AND ADOPTED this 15th day of June, 1982 by the
following vote of said Board:

RESOLUTION 82-15

A RESOLUTION OF THE MONO COUNTY PLANNING
COMMISSION ADOPTING FOR TRANSMITTAL TO THE
BOARD OF SUPERVISORS A SAFETY ELEMENT AND
ENVIRONMENTAL IMPACT REPORT TO THE GENERAL
PLAN AND FINDINGS THAT SAID ACTION WILL NOT
HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.

WHEREAS, the State of California mandates that all counties
and cities shall prepare and adopt a Safety Element,

WHEREAS, Mono County in compliance with the General Plan
extension granted by the State Office of Planning and Research
has caused to be prepared documents entitled "Mono County Safety
Element" and Environmental Impact Report, and

WHEREAS, the Planning Commission of the County of Mono did
on the 11th day of February 1982 and the 24th day of March hold
noticed and advertised public hearings to hear all testimony
relevant to said plan,

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission
of the County of Mono does hereby approve and adopt the Safety
Element and Environmental Impact Report.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the Planning
Commission of the County of Mono finds and determines that
preparation and subsequent adoption thereof will not have a
significant impact on the environment.

PASSED AND ADOPTED this 24th day of March 1982 for trans-
mittal to the Board of Supervisors with a recommendation for
adoption and findings that the preparation and subsequent
adoption will not have a significant impact on the environment.

AYES: Commissioners Behnke, Fraser, Good, Lemmon

NOES: Commissioner Stout

ABSTAIN: None

ABSENT: None

ATTEST: *Robert W. Sandy*
Robert W. Sandy
Planning Director

Madalene K. Good
Madalene K. Good, Chairperson
Mono County Planning Commission

Approved As To Form:

Bret H. Reed
Bret H. Reed
Deputy County Counsel

TABLE OF CONTENTS

Section I	INTRODUCTION
Section II	GLOSSARY
Section III	HAZARD DELINEATION
Section IV	GOALS, POLICIES AND IMPLEMENTATION MEASURES
Section V	CONSISTENCY WITH OTHER GENERAL PLAN ELEMENTS
Section VI	REFERENCES
Section VII	PEOPLE AND ORGANIZATIONS CONTACTED

FIGURES

Figure I	Snow Avalanche Hazard Maps
Figure II	Flood Hazard Maps
Figure III	Fire Hazard Map

SECTION I

Introduction

Significant potential hazards to public safety are present in Mono County. Portions of several communities within the County are seriously threatened by snow avalanches. Although Mono County is relatively free of flood hazards, flooding does pose a potential threat to properties situated in the vicinity of select waterways within the planning area. Despite the relatively noncombustible vegetation which predominates along the Eastern slopes of the Sierra, during the dry season, fire is a general problem throughout the County. Even though local government lacks the authority to resolve the problem, mention should also be made of the alkali dust hazard. Suspended particles blowing off the exposed lake shore and island shores of Mono Lake pose a health hazard for the people, plants and animals of the Mono Basin. The Great Basin Unified Air Pollution District attributes this problem to the water diversion activities of the L.A. Department of Water and Power. Additional hazards which occur in Mono County include earthquakes, landslides, mudflows, rockfalls, liquefaction, soil instability, and volcanic eruptions, all of which are addressed in the Mono County Seismic Safety Element. The 1976 Element was recently updated (April 1982) to address the seismic activity which occurred during the Spring of 1980 and the Fall of 1981.

The aim of the Safety Element is to develop and maintain as high a level of public safety as is realistically possible. This Element identifies locally significant potential public safety hazards (i.e., possible snow avalanche, flooding and fire) and outlines goals, policies and

implementation measures designed to reduce these hazards to an acceptable level of risk. Successful implementation of this Element should reduce the loss of life, injuries, major damage to property, and the economic and social dislocation which may result from public safety hazards.

SECTION II

Glossary

Listed below are terms used in this Element:

Acceptable Level of Risk--The level of risk below which further specific regulatory action is deemed unnecessary.

Conditional Development Zones-----Property subject to infrequent hazardous activity as defined for each type of hazard in Section III of this Element. "Conditions of approval" shall be imposed to minimize the risks associated with development of these properties.

Conditions of Approval--Requirements imposed by the County to minimize the impact of a proposed project. Compliance with these conditions is a prerequisite for project approval.

Critical Facilities--Facilities which provide essential community services such as hospitals, fire and police stations, electrical substations, roads, etc.

Hazard-prone Areas--Property subject to risks associated with snow, avalanches, flooding and fire as depicted in Figures I--III of this Element.

Hazard Study--A report prepared for projects proposed within a "hazard-prone area" to determine the level of risk associated with development of the property.

High Occupancy Structures--Buildings which by nature of their use attract numbers of people such as multiple family dwellings, theaters, auditoriums, etc.

Involuntary Occupancy Structures--Buildings open to the general public such as government offices, commercial establishments, motels, etc.

Restricted Development Zones--Property subject to recurrent hazardous activity. The frequency interval for each type of hazard is discussed in Section III, Hazard Delineation.

Seasonal Home--A single family residence occupied strictly during non-hazardous periods.

Structures for Human Occupancy--Buildings which are occupied for residential purposes.

SECTION III

Hazard Delineation

The delineation of locally significant potential public safety hazards is a crucial step in achieving an adequate level of public safety. Each of the three public safety hazards addressed in this Element have been analyzed to determine under what circumstances the hazard in question poses such a high level of risk that land use activities within such hazard-prone zones should either be restricted or permitted subject to specified "conditions of approval".

Figures I--III delineate possible avalanche, flood and fire hazards in Mono County, indicating which properties are considered appropriate for "restricted development", "conditional development" and "nonconditional development". A brief explanation of the level of risk associated with each of these public safety hazards follows.

- A. Snow Avalanche Hazard--The U.S.F.S Avalanche Handbook defines avalanche to mean: "a mass of snow that sometimes contains rocks, soil and ice moving rapidly downslope". Numerous factors contribute to unstable snow conditions, including snowpack structure, snow density, temperature fluctuations, wind speed and direction, precipitation intensity, etc.
1. High Hazard (RED) Zone--Includes terrain exposed to frequent (i.e., return interval of less than 30 years/ probability of occurrence of more than 3%) and/or powerful avalanches (i.e., snow pressures greater than three tons per square meter/600 pounds per square foot).
 2. Moderate Hazard (BLUE) Zone--Includes avalanches that are either less frequent (i.e., a return interval of 30 to

300 years/probability of occurrence of less than 3%) and/or less powerful (i.e., snow pressures less than three tons per square meter/600 pounds per square foot). Relatively conventional structures can be built to withstand moderate hazard forces by utilizing such structural mitigation measures as reinforced concrete walls without windows or with adequate wooden shutters on the side facing the hazard-prone slope, wedge-shape design, etc.. Furthermore, avalanche protection devices, such as barriers and sheds, can be used to protect existing and proposed structures, as long as these defense measures do not exacerbate the hazardous nature of surrounding properties. In addition, the Board of Supervisors will establish alternative mitigation mechanisms, including (a) or (b) discussed below:

- a. Formation of a "Snow Technical Advisory Committee" for a particular avalanche-prone area (e.g., Long Valley, June Lake, Twin Lakes, etc.). Whenever possible, each committee should be comprised of a representative from Caltrans and the Forest Service, as well as a heliski operator and a ski patrolman. This committee would be responsible for monitoring hazardous conditions during the avalanche season (11/1--4/15) and as necessary recommending to the Sheriff's Department the evacuation of the hazard-prone area. This committee should also be utilized to determine the avalanche season for their particular area and to review their determination on an annual basis.

- b. Authorization to hire a recognized avalanche expert to assume the forecasting role assigned to the Snow Avalanche Technical Advisory Committee, in addition to avalanche control responsibilities. The expert's salary could be funded through a variety of means, including the formation of a special assessment district.

In the event that either structural mitigation or adequate alternative mitigation measures are not provided, all proposed structures for human occupancy, as well as existing and proposed "critical facilities", "high occupancy" and "involuntary occupancy structures" should be vacated during the avalanche season (11/1 - 4/15, or as determined by a Snow Technical Advisory Committee and reviewed on an annual basis.) The snow avalanche hazard maps contained in Figure I are the result of several types of analysis, including historical surveys (e.g., studies of snow, weather, and avalanche occurrence records) and field surveys (e.g., analysis of terrain, vegetation and debris). Should hazard and/or geophysical studies be conducted within these avalanche-prone areas and should the determined degree of risk vary from that which is identified in this Element, Figure I will be modified as necessary.

B. Flood Hazard

1. High Hazard Zone--Includes properties within 100 year floodplains, flash flood washes and designated floodways. Due to the lack of County-generated flood hazard data, Figure II is based upon the Flood Hazard Boundary Maps prepared for Mono County in 1978 by the Federal Insurance Administration (F.I.A.). The F.I.A. maps have been modified to

to reflect revisions that were never completed, as well as information contained in the Benton/Chalfant Valley Area General Plans. Should additional data become available, either through the area general planning process or other means, Figure II should be modified as necessary. Mitigation measures include berms, elevated structures, etc.

C. Fire Hazard

1. Wildland

- a. Extreme/High Hazard Zone--includes steeply-sloped terrain subject to frequent critical fire weather (i.e., more than eight critical fire days/year) and/or heavy to medium fuel loading (i.e., woods/brushwood or scrub). Mitigation measures include a central water system, low density development, (i.e., one dwelling per 2½ acres, the imposition of State Fire Marshal recommendations, etc.).

2. Urban

- a. Insurance Service Office (I.S.O.) Rating 9+-- includes community areas within the County which are more than five miles from a recognized, full-time fire department (can be volunteer) or more than 1000 feet from a public fire hydrant with an adequate water supply as determined by the appropriate fire district. Mitigation measures include annexation to a fire district, establishment of fire breaks, provision of a fire hydrant,

sprinklers, etc. Should the I.S.O. rating for a particular community be adjusted, and/or should information be provided by the Mono County Fire Service Association, Figure III will be modified as necessary. Note: Upon completion, the Mammoth Lakes Fire Protection Districts's planning efforts will be incorporated as part of the Safety Element of the Mono Plan.

It should not be presumed that properties which are not subject to restrictions are free from hazard, but rather that they are less likely to be affected by the three types of hazards described above.

SECTION IV

Goals, Policies and Implementation Measures

GOAL I

Minimize death, injury, property damage and natural resource destruction which may result from public safety hazards.

Policy A

Inform the public as to the nature and extent of potential public safety hazards in the planning area.

Implementation Measure 1

Identify and delineate "hazard-prone zones" within the County.

Discussion: As previously discussed in the introduction of this element, snow avalanches, flooding and fire are all considered to be local potentially significant public safety hazards. Potential public safety hazards can be mapped in order to determine the areas within the County which are most likely to be impacted in the event of a natural disaster. These "hazard-prone zones" are delineated in Figures I---III and designated as either "restricted development" or "conditional development zones".

Implementation Measure 2

Support present informational efforts, and inform owners of hazard-prone properties of the type of hazard associated with their properties.

Discussion: Current informational efforts include broadcasting avalanche warnings over the radio and instituting a fire prevention campaign. Additionally, in order to ensure the safety of people who are

particularly vulnerable in the event of a natural disaster (i.e., senior citizens, handicapped persons, etc.), a list of these susceptible residents has been compiled for the Mammoth area. As part of the general plan revision process, owners of hazard-prone properties will be notified of such (i.e., type of hazard will be reflected in the zoning which has to be brought into consistency within one year of the general plan adoption and requires property owner notification). In addition, prior to issuing a building permit for a hazard-prone property, the applicant will be asked to sign a statement indicating that he/she is aware of the potential hazard associated with the property in question.

Implementation Measure 3

Investigate the posting of signs to reasonably identify the boundaries of the avalanche hazard zones in particular.

Discussion: Such signs could read "Entering Potential Avalanche Hazard Area" and could be turned around during hazard-prone periods.

Policy B

Consider public safety in reviewing projects proposed within "hazard-prone zones" delineated by this element.

Implementation Measure 1

Limit the land use activities in "restricted development zones" to those which are of proven compatibility with the high risk to life and property presented by this hazardous

zone (e.g., a ski area with active avalanche forecasting and control programs, seasonal home, christmas tree farm, etc.).

Discussion: Due to the force and frequency of hazardous events in the "restricted development zone", future land use activities permitted by the Commission/Board will be extremely limited in scope. The assessment of restricted properties should be adjusted accordingly.

Implementation Measure 2

Require that "structures for human occupancy", "involuntary occupancy structures" and improvements in "conditional development zones", are constructed to withstand hazardous forces, unless otherwise mitigated as discussed in Section III of this Element. Require that "critical facilities" in "conditional development zones" are constructed to remain functional in the event of a hazardous episode.

Discussion: At a minimum, all proposed structures for human occupancy as well as structures which are open to the general public (i.e., "involuntary occupancy structures") must be designed to withstand hazard forces even if rendered useless, unless vacated during hazard-prone periods or otherwise mitigated as discussed in Section III. "Critical facilities" must not only remain standing, but must be able to operate on a full-time basis and at peak

efficiency in the event of a disaster. Structural requirements will be imposed by the Building Department and evacuation of all occupied structures will be enforced by the Sheriff's Department.

Implementation Measure 3

Require that, unless otherwise mitigated as discussed in Section III, all development proposals (e.g., zoning amendments, tentative maps, use permits, building permits, etc.) which fall within a "restricted development zone" or "conditional development zone" and are not automatically prohibited under the preceeding implementation measures, be accompanied by a "hazard study" and that any resulting recommendations be incorporated as "conditions of approval" for the proposed project or that a letter from the appropriate responsible agency (e.g., Lahonton, Public Works Department, Fire District, Planning Department) indicate the "conditions of approval" necessary to mitigate the potential hazard. A hazard study can also be submitted to address the hazard potential for existing structures within a hazard-prone zone.

Discussion: A "hazard study" will help to determine what type of development will be allowed within the "conditionally developable zones" of the County. The study must be prepared by a registered civil engineer and/or a recognized expert for the hazard in question. The hazard study must include a site-specific hazard map indicating degree of risk, an assessment of project impact and any recommended mitigation measures (clustering units within nonhazardous portions of the site, structural reinforcement,

protective devices, etc.) These mitigation measures will be incorporated as "conditions of approval" for the proposed project by the appropriate decision-making body (i.e., Board of Supervisors, Planning Commission, Building Department). Should the results of a hazard study differ significantly from the data included within this Element, a third opinion from a recognized hazard expert will have to be obtained by the County. A letter from an appropriate responsible agency must also include mitigation measures which will be incorporated as "conditions of approval" for the proposed project.

Policy C

Prevent the actualization of potentially hazardous situations whenever possible.

Implementation Measure 1

Establish a program within "hazard-prone zones" to abate hazardous improvements and structures or to control use, there of, during defined hazard periods.

Discussion: Section 7.20.010 of the Mono County Code gives the Board of Supervisors the authority to abate public nuisances. Unless otherwise mitigated as discussed in Section III, all existing structures and improvements (i.e., primary and secondary roads, overhead utilities) within "restricted development zones" and any existing "critical facilities", "high occupancy structures" and "involuntary occupancy structures" which cannot withstand hazard forces and are situated within a "conditional development zone" are considered a threat to the public health, safety and welfare. Therefore, under the authority of Section 7.20.020 of the Mono County Code, these hazardous

structures and improvements should either be vacated during hazard-prone periods (e.g. seasonal homes, hazard-prone portions of roads would be closed during high-risk periods) structurally upgraded to withstand a natural disaster, relocated, or otherwise mitigated as discussed in Section III of this Element. The responsibility for abatement of public nuisances lies with the Public Works Department under the direction of the Board of Supervisors (Section 7.20.090, Mono County Code).

Implementation Measure 2

Continue to monitor potential public safety hazards to determine periods of high risk.

Discussion: At the present time, agencies such as the U.S. Forest Service monitor hazard-prone conditions (e.g., high avalanche prone conditions, critical fire weather). The County Sheriff's Department keeps in contact with the Forest Service and should a hazardous situation develop personally advises those within the hazard-prone area of the critical nature of the hazard.

Implementation Measure 3

Notify the Department of the Navy that sonic flights at lower levels can trigger avalanche activity.

GOAL II

Provide an effective system of safety-oriented services, including hospitals, ambulances, fire department, etc.

Policy A

Continue to develop an efficient emergency response system.

Implementation Measure 1

Maintain a communication network with Federal, State and local agencies involved with disaster preparedness.

Discussion: A number of agencies are involved with

disaster preparedness including the U.S. Small Business Administration--Disaster Office, the State Emergency Services Office, the local fire departments, the County hospital and the Sheriff's Department.

Implementation Measure 2

Continue to consolidate safety-oriented services, such as fire protection, in order to provide a more efficient emergency services system.

Discussion: The County is in the process of revamping its emergency services system.

Policy B

Support local efforts for the provision of emergency services.

Implementation Measure 1

Further the ability of the County Operational Area Coordinator and the County Director of Civil Defense and Emergency Services to coordinate between local emergency service agencies, to obtain State assistance whenever necessary, to develop and implement emergency operational plans, etc.

Discussion: In Mono County the Sheriff has been designated by the Board of Supervisors as Operational Area Coordinator and is temporarily serving as the Director of Civil Defense and Emergency Services. The future of these positions will be resolved in conjunction with the County's revamping efforts.

Implementation Measure 2

Carry out the provisions of the Mono County Emergency Operations Plan.

Discussion: The County Emergency Plan, which was prepared in 1976 by the Public Works Department, includes operational concepts, schedules and considerations. An update is anticipated as part of the County's revamping efforts. A contingency response plan for spills of hazardous materials should be included within that update.

GOAL III

Provide adequate safety improvements, including emergency circulation.

Policy A

Provide for safe ingress and egress of emergency vehicles and equipment.

Implementation Measure 1

Continue to review development proposals to ensure the provision of primary and secondary access.

Discussion: The Public Works Department reviews the adequacy of primary and secondary access on a case-by-case basis. In addition, the appropriate fire protection district can request that emergency access be provided.

Implementation Measure 2

Continue to implement County standards for widths, grades and curves of roads to permit passage and maneuvering of emergency vehicles and equipment.

Discussion: The County Code and recently-adopted County Road Improvement Standards (September 1981) establish standards for widths, grades and curves of newly-constructed roads.

Policy B

Facilitate the prompt arrival of emergency vehicles and equipment.

Implementation Measure 1

Continue to keep county roads as well maintained and clear of snow as is possible and encourage CalTrans to do the same for U.S. highways and State routes.

Discussion: In order for the County Public Works Department to improve road conditions, additional funding is necessary. Fundings for such purposes is extremely limited. It should be noted that a maintenance/snow removal program, which establishes priorities for County roads, is updated on a regular basis.

Implementation Measure 2

Continue to implement a consistent street naming and house numbering system for the County and require all names and numbers to be clearly visible.

Discussion: Section 15.20.020 of the Mono County Code establishes a property-numbering system for "specific populated areas" of Mono County. Numbers are assigned by the County Public Works Department. It is the intent of this Element to encourage the implementation of this system on a County-wide basis as soon as feasible.

Section V

CONSISTENCY WITH OTHER GENERAL PLAN ELEMENTS

State law requires (Government Code Sec. 65300.5) that "... the general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies for the adopting agency." The goals, policies and implementation measures contained in the Land Use, Circulation, Housing and the Conservation and Open Space Elements are most relevant for an analysis of general plan consistency for the Safety Element.

Public safety hazards were a primary consideration in developing the land use designations contained in the Land Use Element. The identification of natural hazards has lead to the establishment of standards and policies which regulate the location, intensity and type of development permitted in "hazard-prone zones".

The County circulation system must be designed and maintained to remain operable, even in the event of a natural disaster. Construction standards and safety measures have been established as part of the Circulation Element to ensure mobility in case of an emergency. The presence of hazardous natural conditions will limit housing type and density. New housing developments are required to meet the standards enforced by the Mono County Building Department which include incorporating within their design any special hazard abatement or control methods. The identification of hazardous areas can result in the development of open space and the conservation of natural resources. As indicated by the Open Space and Conservation Elements most of the hazard-prone areas are within or adjacent to publically owned land.

Section VI

REFERENCES

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- Butte County Planning Department. Butte County General Plan,
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- California Department of Forestry. "Fire Safe Guides for
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Unified Air Pollution Control District. "Dust Cloud
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- Mono County Planning Department. Open Space and Conservation
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- United States Department of Agriculture, Forest Service.
Avalanche Handbook. November, 1978,
- Wilson, Norman A. "June Lake Loop Avalanche Study."
December, 1973

Section VII

PEOPLE AND ORGANIZATIONS CONTACTED

Beck, Dave
Avalanche Consultant (Mammoth Lakes)

California Department of Forestry
John Ferguson, Round Valley
Hank Weston, Sacramento

California Department of Real Estate
Tom Day, Deputy Commissioner

California Water Resources Control Board, Lahontan Region
Nelson Wong, Water Resources Control Engineer

Federal Emergency Management Agency
Ira Simmons, Division of Inspection and Mitigation

Great Basin Unified Air Pollution Control District
Chuck Fryxell, Air Pollution Control Officer

Mono County
Road Department /
Ran E. Berlin, Engineering Assistant
Floyd Roberts, Mammoth District Supervisor

U.S. Forest Service
Forest Supervisor's Office, Bishop
Don Roberts, Chief Fire Control Officer

Mammoth Ranger District
Stan Bunch, Ranger (Avalanche Specialist)

Wilson, Norman A.
Avalanche Consultant (Morden, CA)

SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig.1a-TWIN LAKES AVALANCHE HAZARD

LEGEND:



HIGH AVALANCHE HAZARD
Not developable



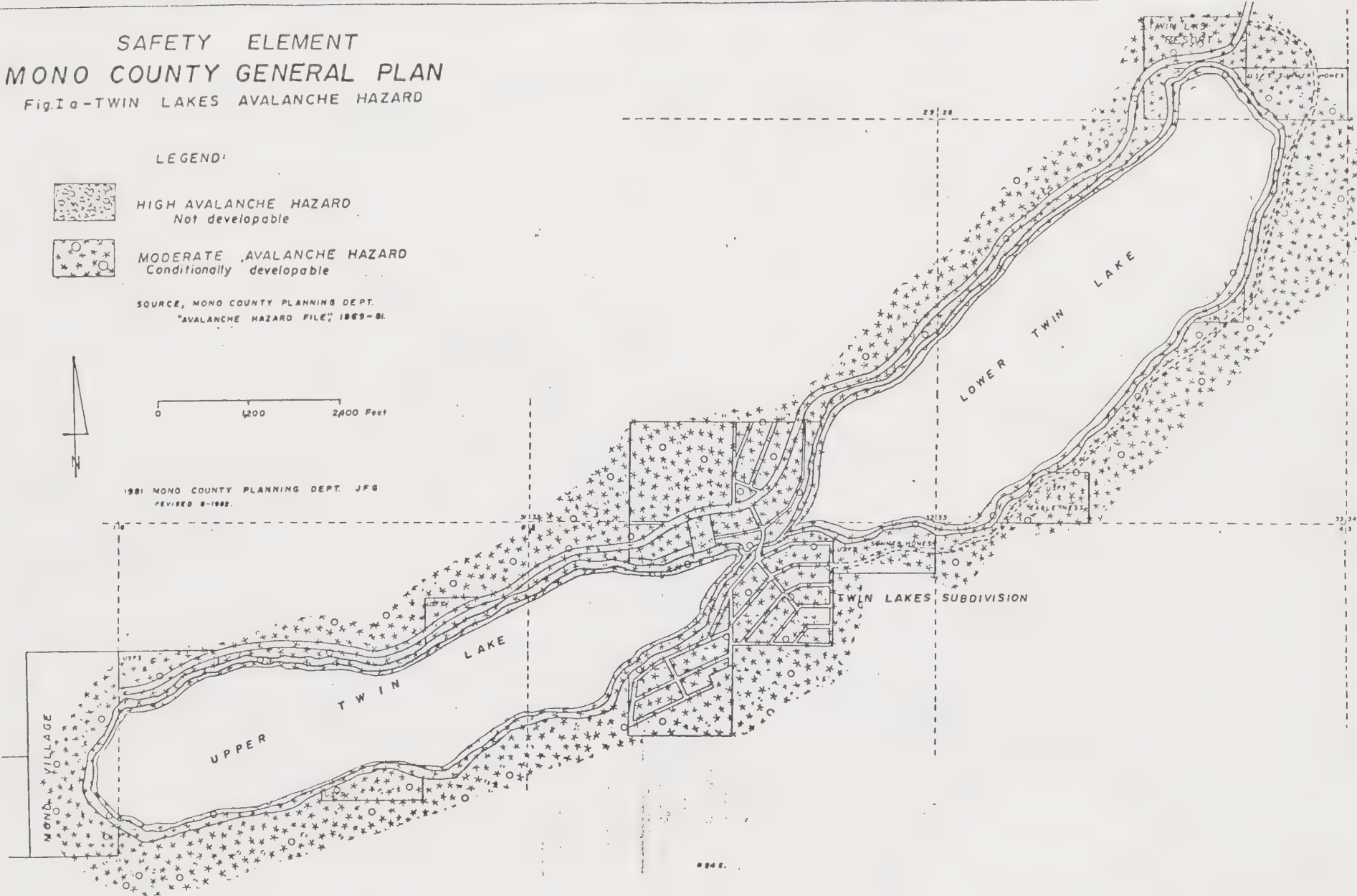
MODERATE AVALANCHE HAZARD
Conditionally developable

SOURCE, MONO COUNTY PLANNING DEPT.
"AVALANCHE HAZARD FILE" 1969-81.



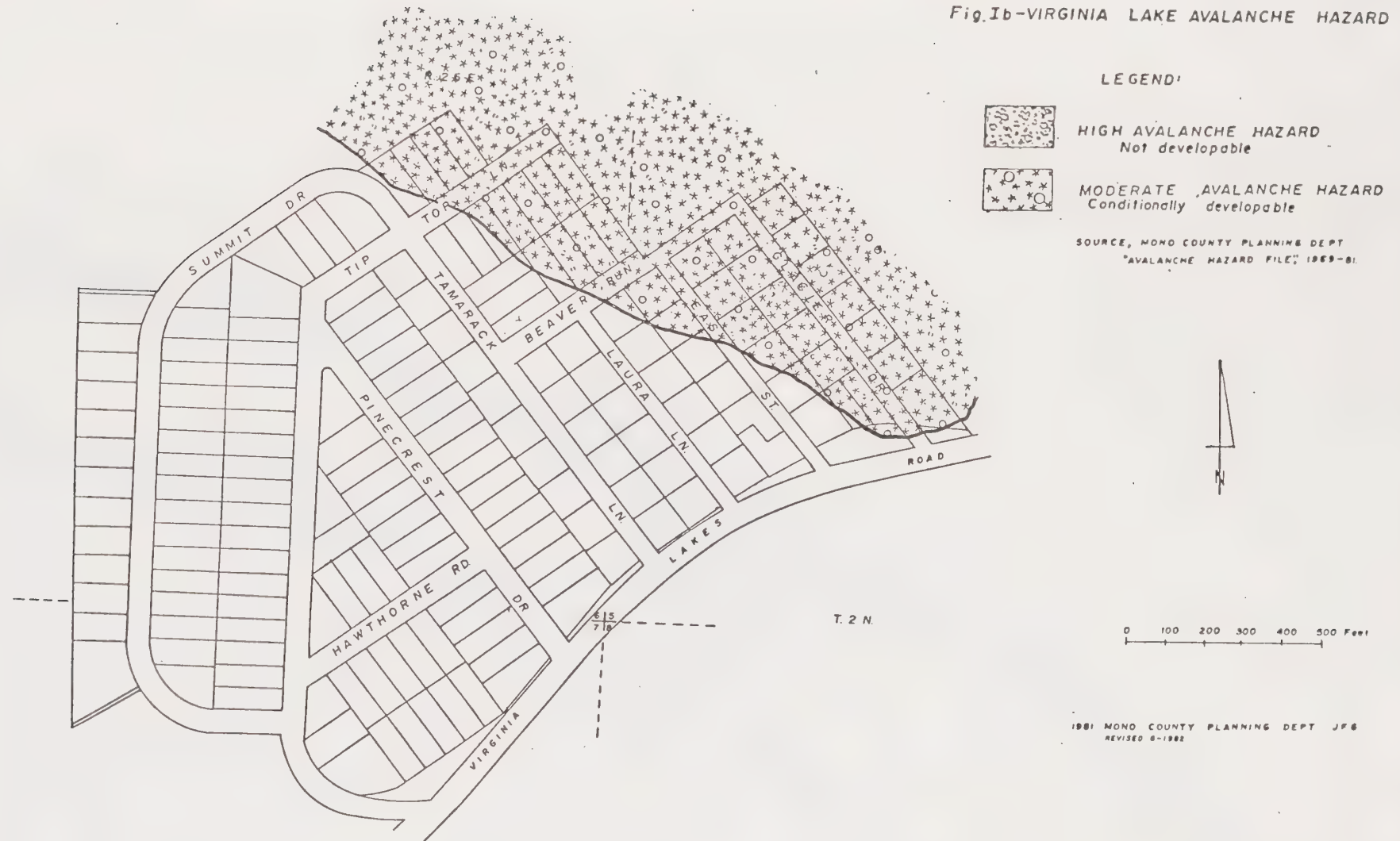
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1981 MONO COUNTY PLANNING DEPT. JFG
REVISED 8-1982.



SAFETY ELEMENT
MONO COUNTY GENERAL PLAN

Fig.1b-VIRGINIA LAKE AVALANCHE HAZARD



SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. Ic - JUNE LAKE VILLAGE AVALANCHE
HAZARD

LEGEND:

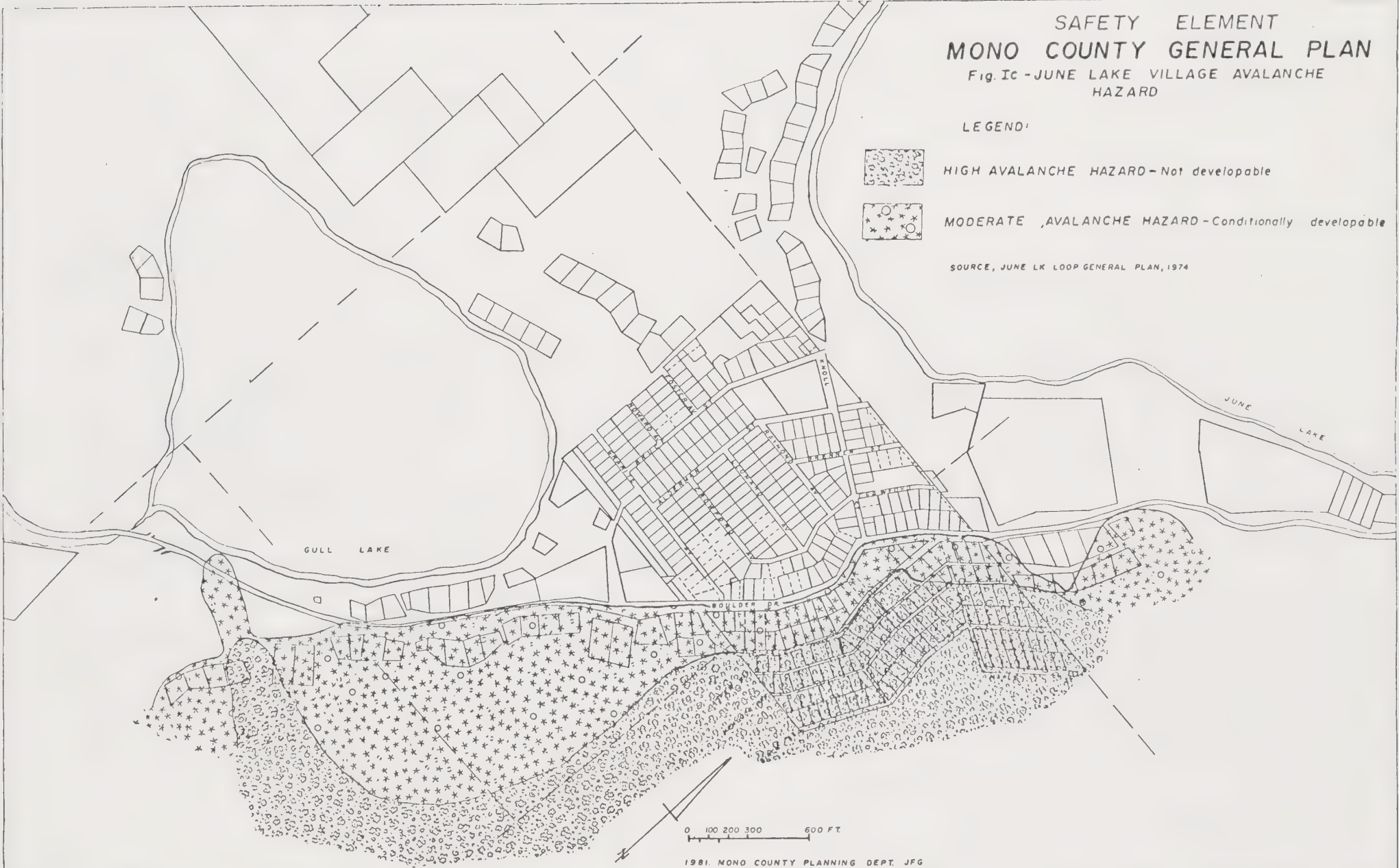


HIGH AVALANCHE HAZARD - Not developable



MODERATE AVALANCHE HAZARD - Conditionally developable

SOURCE, JUNE LAKE VILLAGE GENERAL PLAN, 1974



SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig 1c JUNE LK DOWN CANYON WEST HALF PORTION
AVALANCHE HAZARD

LEGEND:

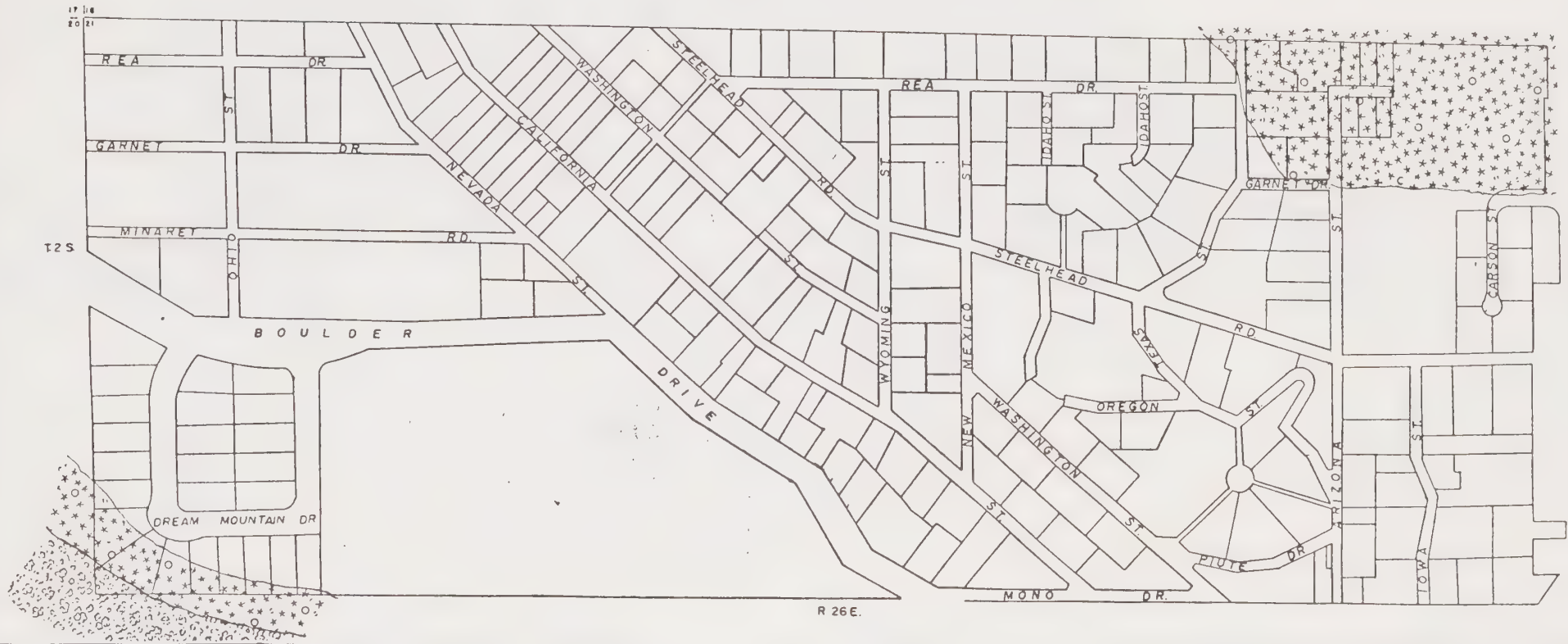
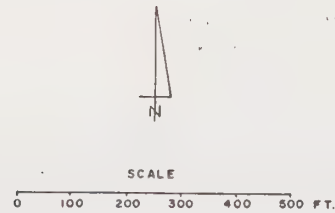


HIGH AVALANCHE HAZARD - Not developable



MODERATE AVALANCHE HAZARD - Conditionally developable

SOURCE, "JUNE LAKE LOOP GENERAL PLAN" 1978
PLANNING DEPARTMENT, JFG 5-1982



SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. Ic- JUNE LK. DOWN CANYON EAST HALF PORTION
AVALANCHE HAZARD

LEGEND:



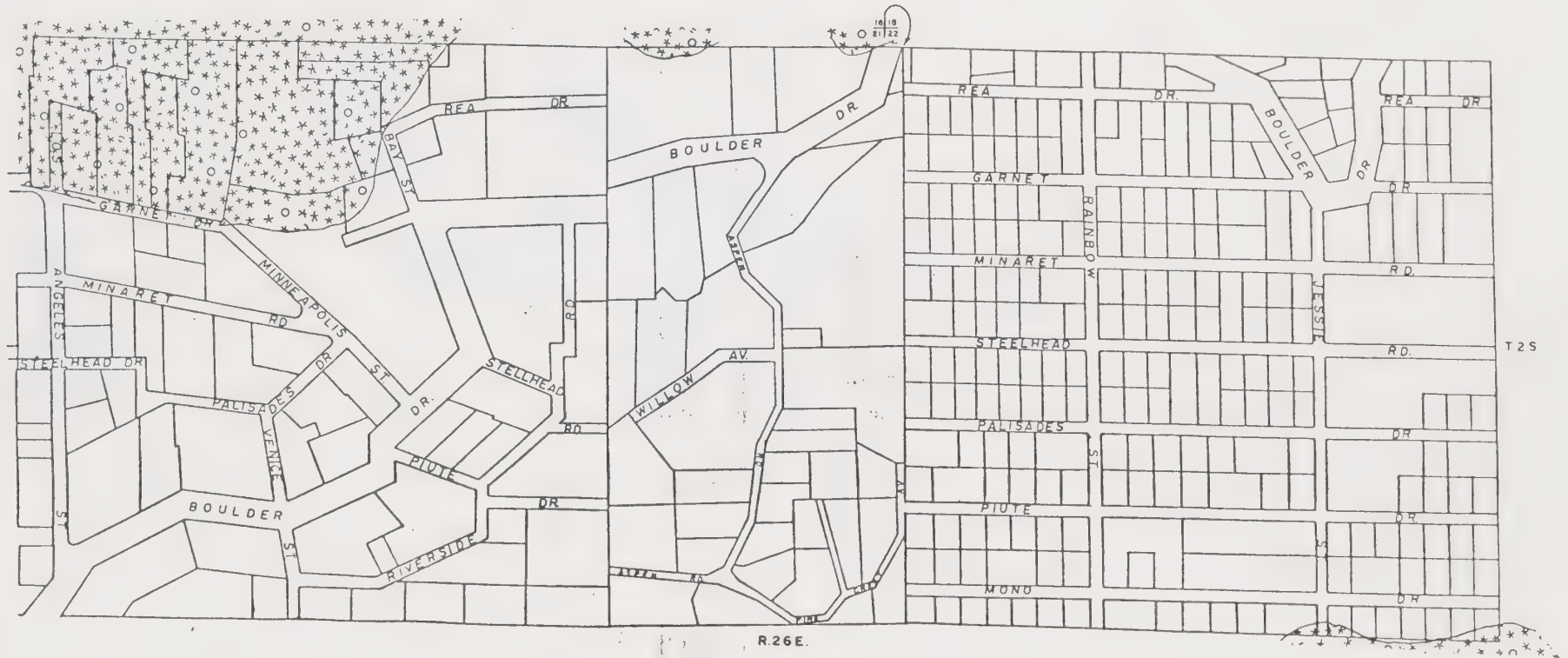
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MODERATE AVALANCHE HAZARD - Conditionally developable

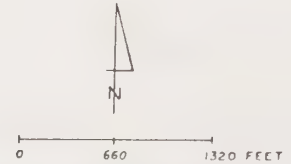
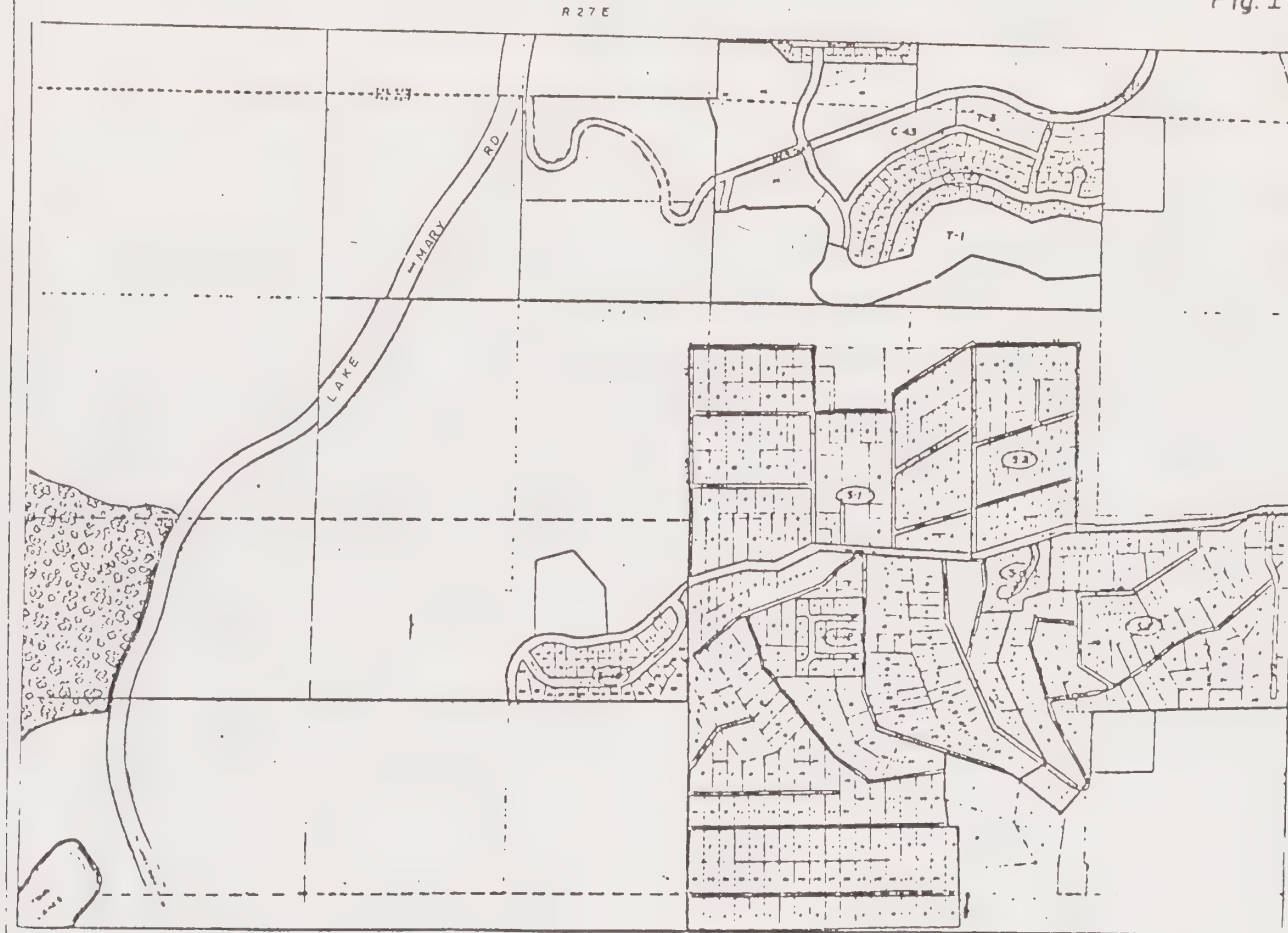
SOURCE, "JUNE LAKE LOOP GENERAL PLAN", 1978
PLANNING DEPARTMENT JFG 5-1982

SCALE
0 100 200 300 400 500 Ft.



SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. Id-MAMMOTH LAKES AVALANCHE HAZARD



1981 MONO COUNTY PLANNING DEPT JFG

LEGEND:



HIGH AVALANCHE HAZARD
Not developable



MODERATE AVALANCHE HAZARD
Conditionally developable

SOURCE, INYO NATIONAL FOREST AVALANCHE MAP 1981
USDA

SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig.1e- LONG VALLEY AVALANCHE HAZARD

LEGEND:



HIGH AVALANCHE HAZARD
Not developable

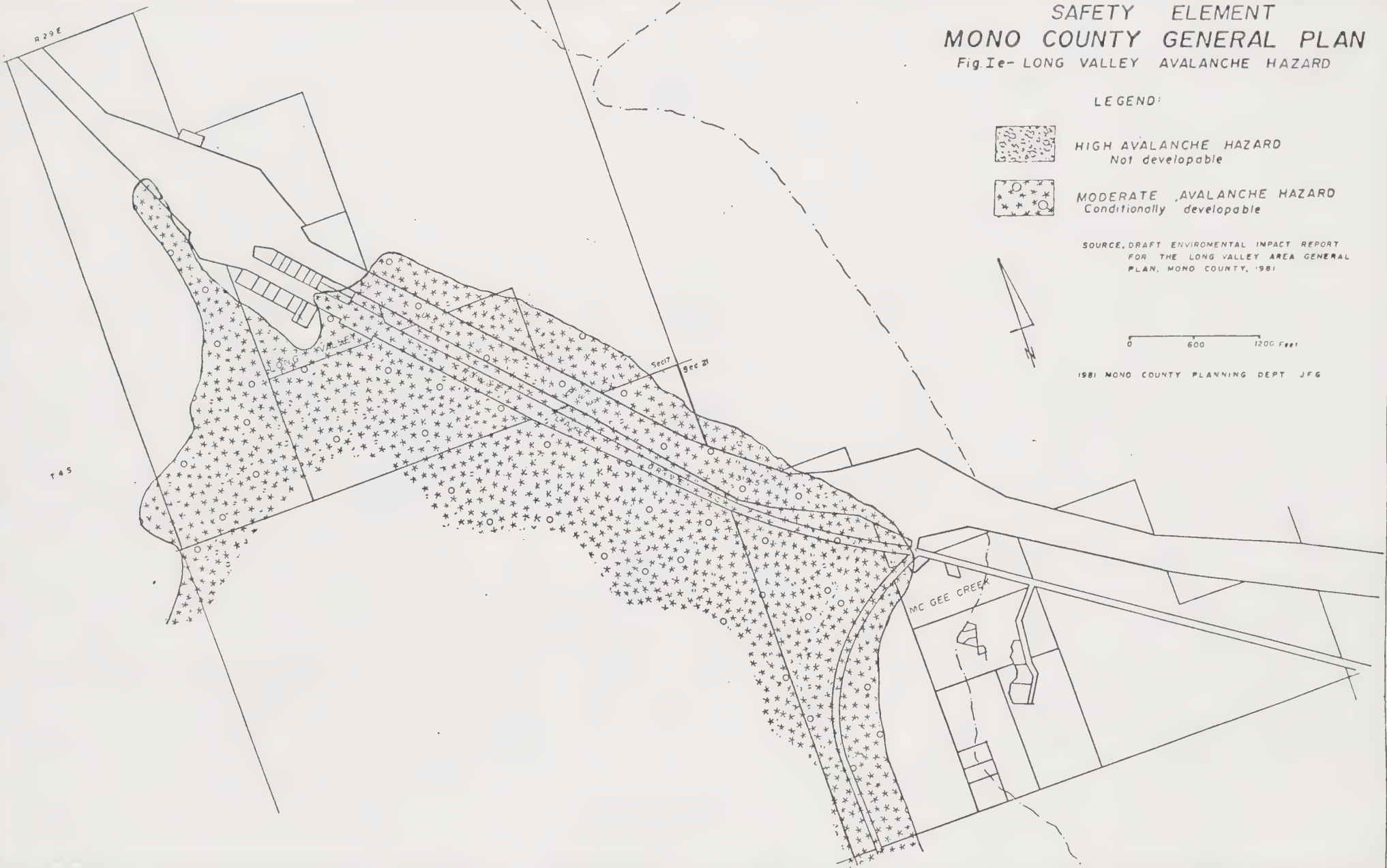


MODERATE AVALANCHE HAZARD
Conditionally developable

SOURCE: DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE LONG VALLEY AREA GENERAL
PLAN, MONO COUNTY, 1981

0 600 1200 Feet

1981 MONO COUNTY PLANNING DEPT JFG



SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. If- LITTLE ROUND VALLEY AVALANCHE
HAZARD

LEGEND



HIGH AVALANCHE HAZARD
Not developable



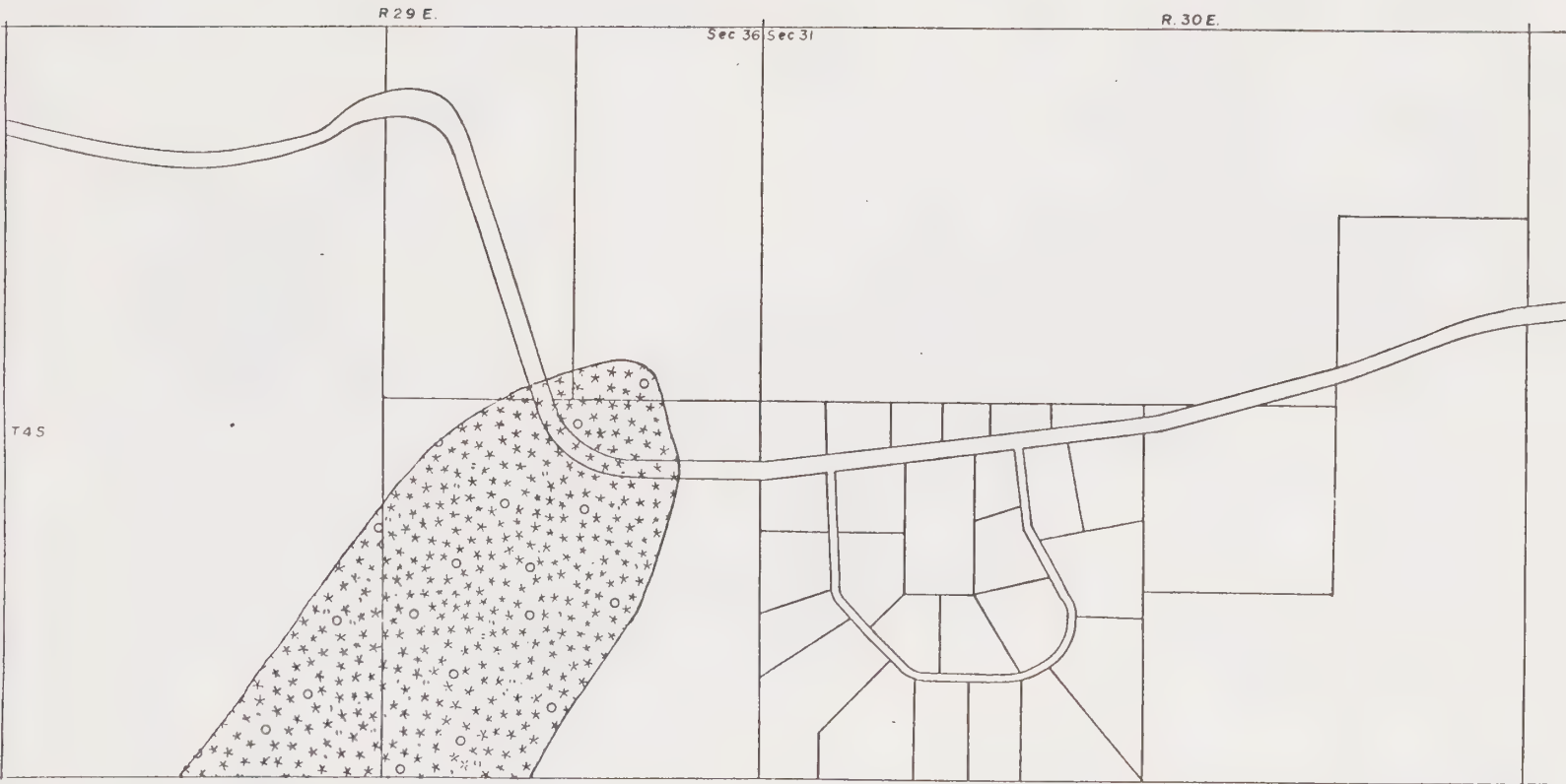
MODERATE AVALANCHE HAZARD
Conditionally developable

SOURCE, DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE LONG VALLEY AREA GENERAL
PLAN, MONO COUNTY, 1981



0 660 1320 Feet

1981 MONO COUNTY PLANNING DEPT JPS



SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig-Ig SWALL MEADOW AVALANCHE DANGER

LEGEND



HIGH AVALANCHE HAZARD - Not developable



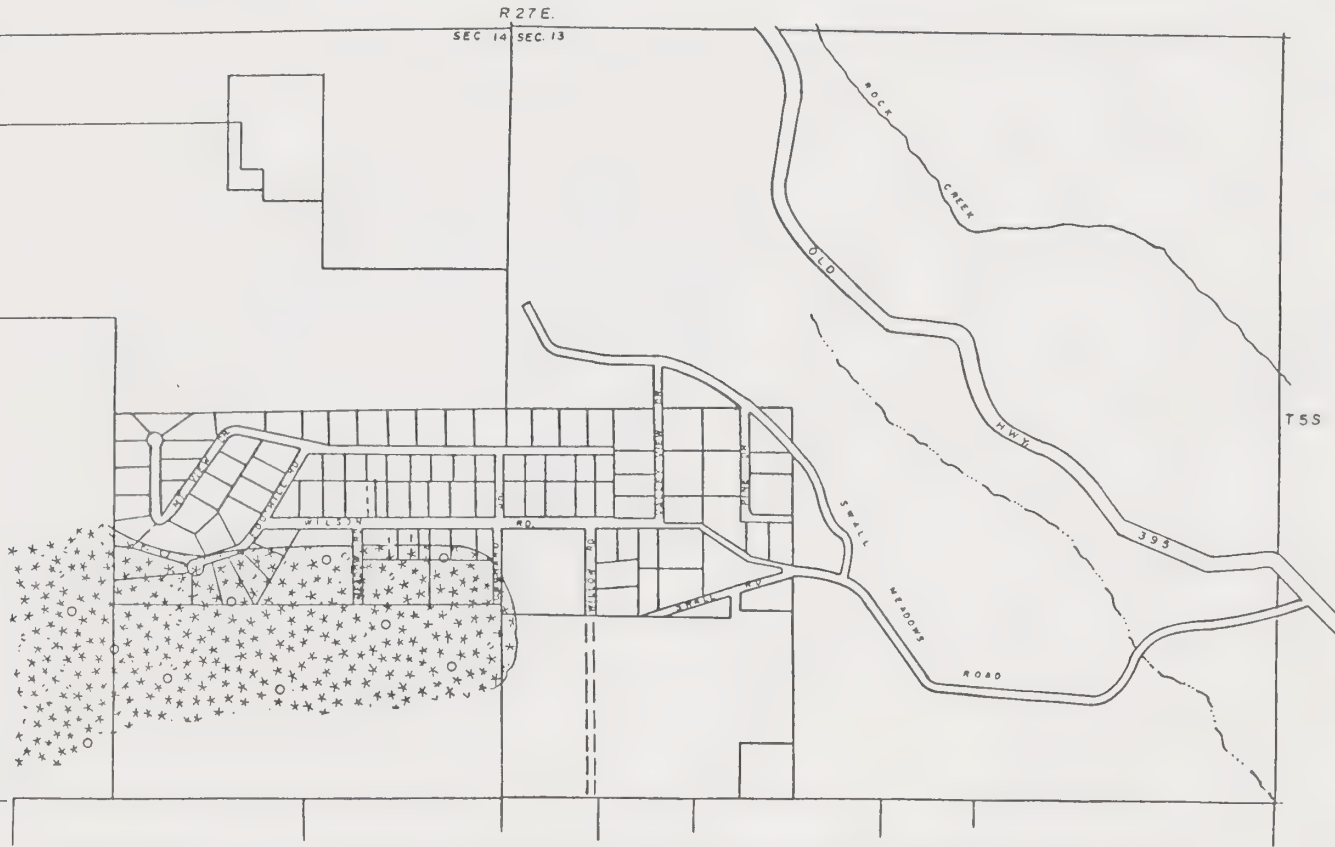
MODERATE AVALANCHE HAZARD - Conditionally developable

SOURCE, AVALANCHE HAZARD FILE, MONO COUNTY PLANNING DEPT., 1989-91.



0 440 880 1760 FEET

DEC, 1981 MONO COUNTY PLANNING DEPT JFS
Revised 2-22-82



R. 22 E. MDB&M, CA

SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. II-a ANTELOPE VALLEY FLOOD HAZARD MAPS
WEST WALKER RIVER, 100 Yrs. FLOOD PLAIN.

LEGEND



FLOOD ZONE - CONDITIONALLY DEVELOPABLE



NOT IN FLOOD ZONE - DEVELOPABLE



SECTION LINES



PROPERTY OR PARCEL BOUNDARY LINES

0' 120' 600' 1200' 1800' 2400'



MONO COUNTY PLANNING DEPT. 1981. JFG
SOURCE, U.S. DEPT OF HOUSING AND URBAN DEVELOPMENT,
FEDERAL INSURANCE ADMINISTRATION, FLOOD HAZARD BNDRY. MAP H-01-200
MADE IN AUGUST 16, 1974. REVISED IN MARCH 28, 1978.

SHEET 1 of 6

T 10 N
T 9 N

SEC 31

VON SCHMIDT

U.S.G.S.

SEC 27

SEC 32

STATE STATE

TRACT 45

TRACT 37

SEC 26

TRACT 46

SEC 4

SEC 35

TRACT 38

SEC 9

SEC 10

SEC 36

CALIFORNIA

NEVADA

SEC 34

U.S.

H.W.Y.

395

LAKE

RESERVOIR

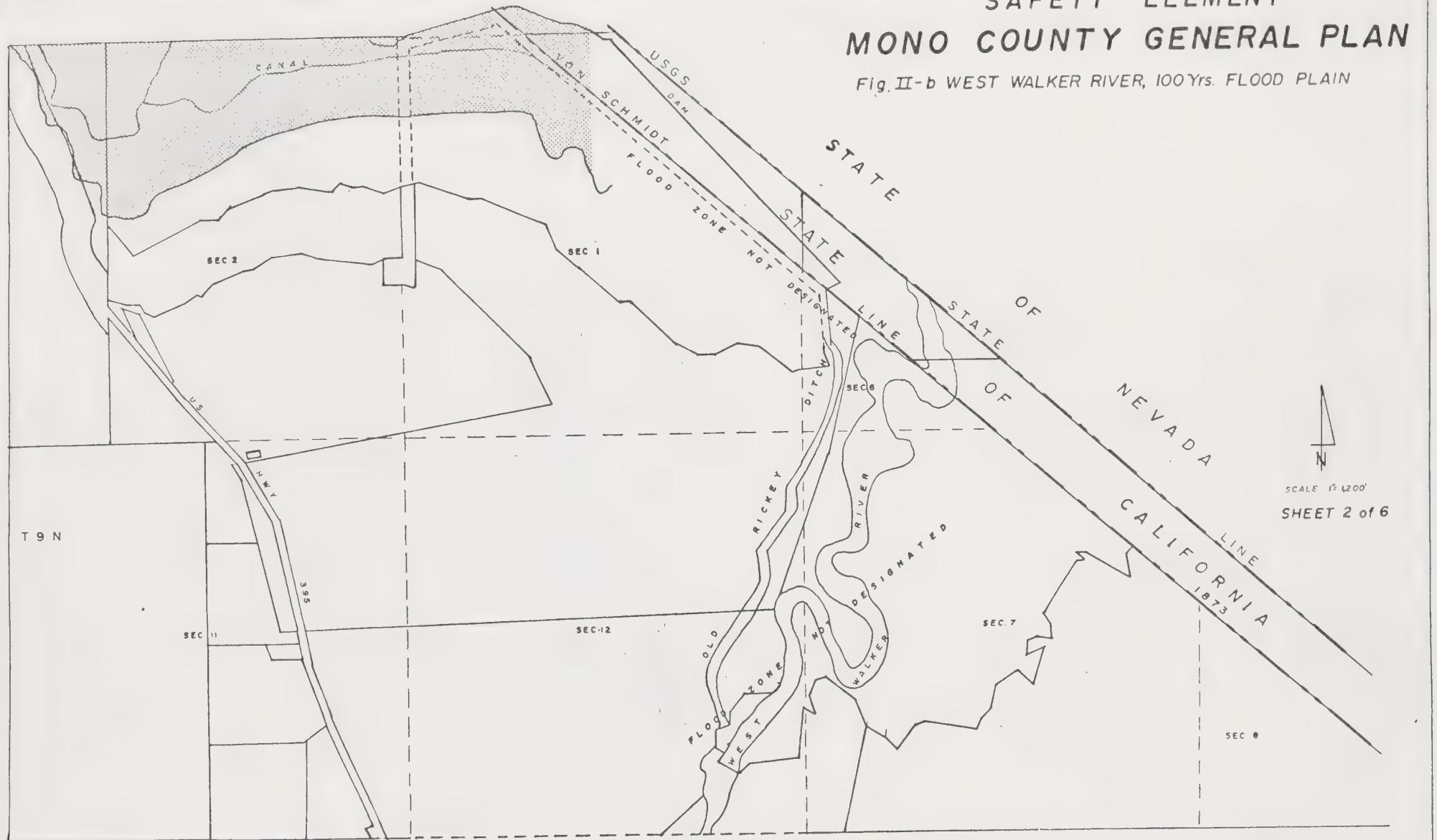
LINE OF SURVEY

R 22 E.

R 23 E.

SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. II-b WEST WALKER RIVER, 100 Yrs. FLOOD PLAIN



SCALE 1" = 4200'
SHEET 2 of 6



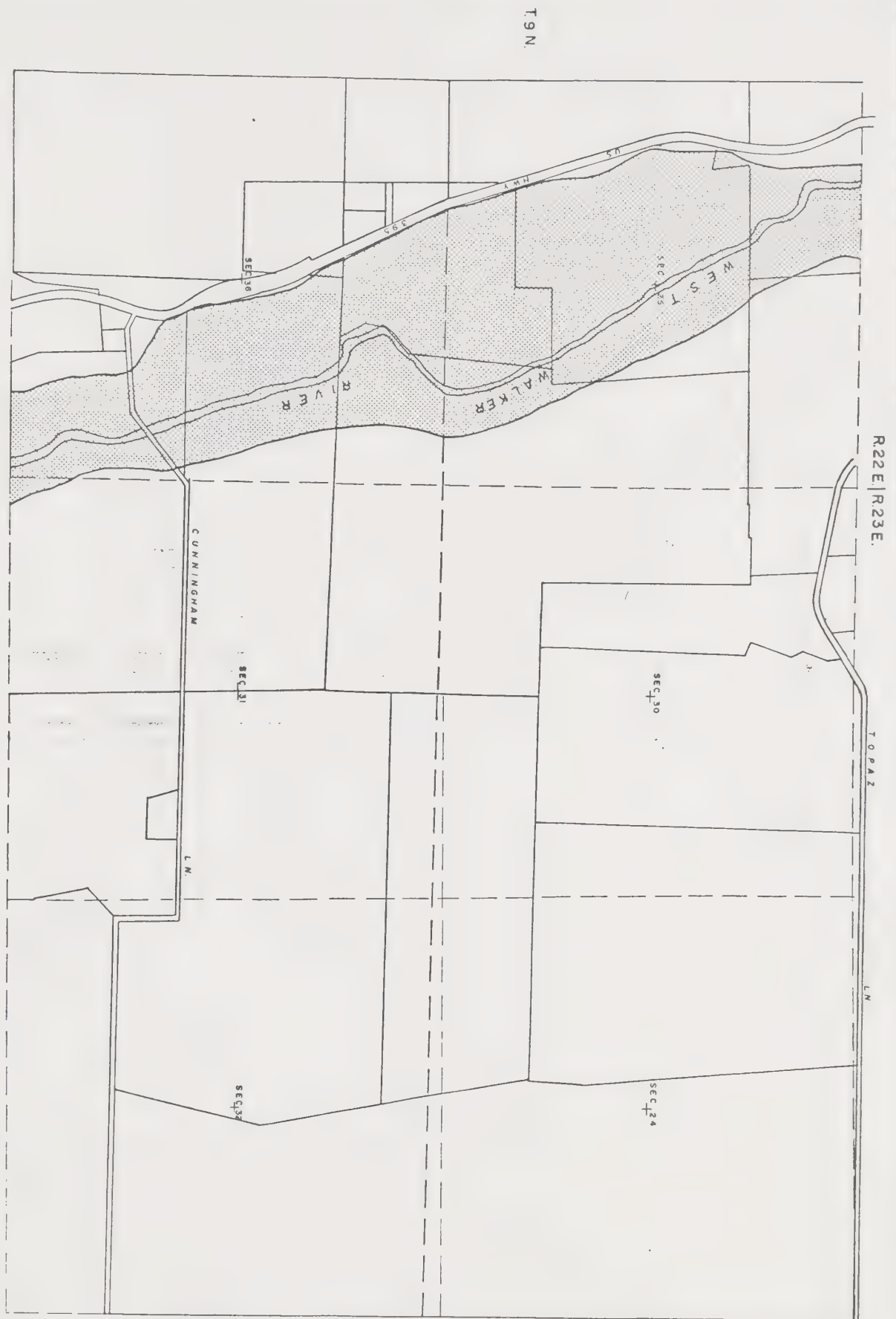
SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. II-c WEST WALKER RIVER, 100 Yrs. FLOOD PLAIN



SCALE 1/2" = 1,200'

SHEET 3 of 6



SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. II-d WEST WALKER RIVER, 100 Yrs. FLOOD PLAIN

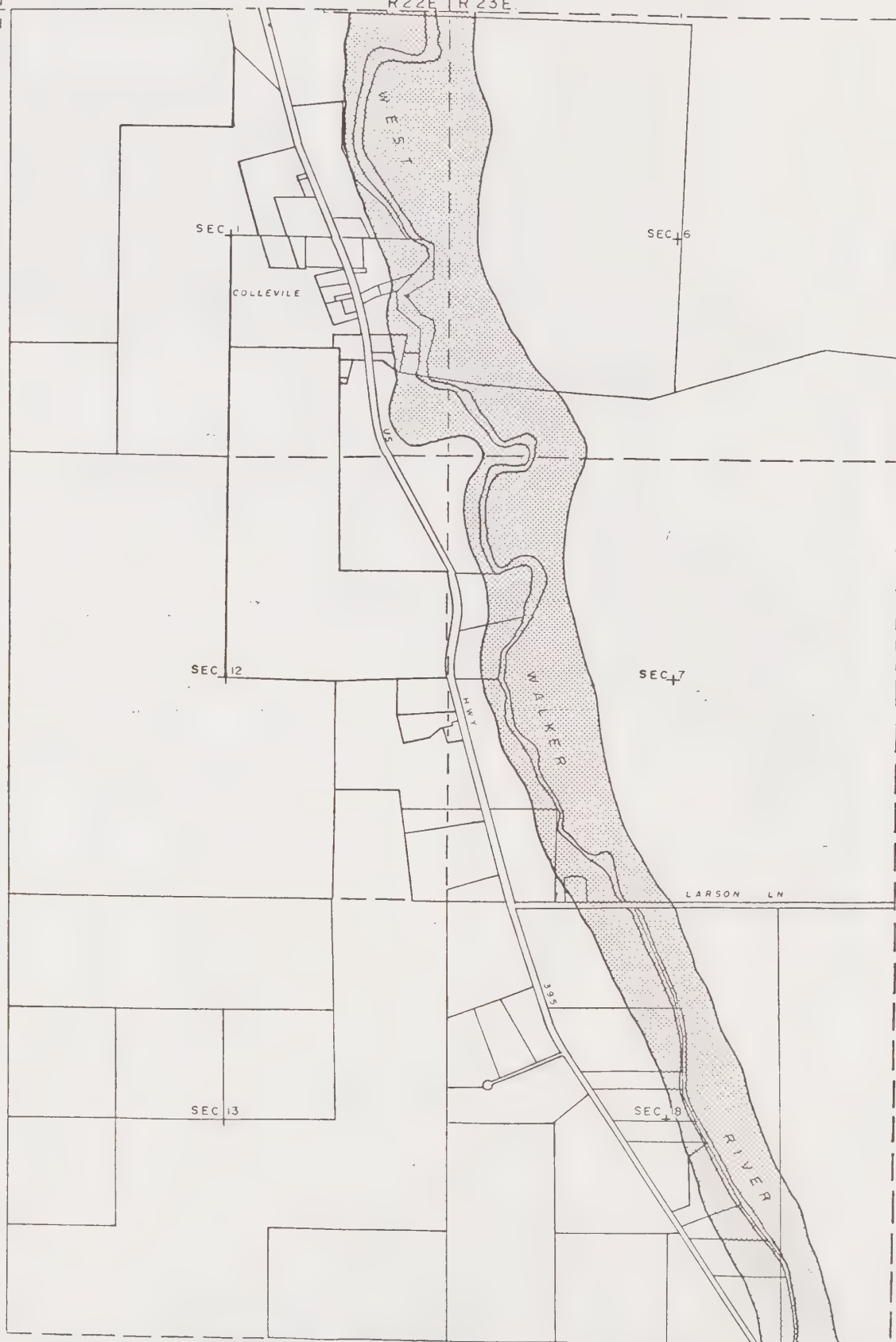


SCALE 1"=1,200'

SHEET 4 of 6

T9N
T8N

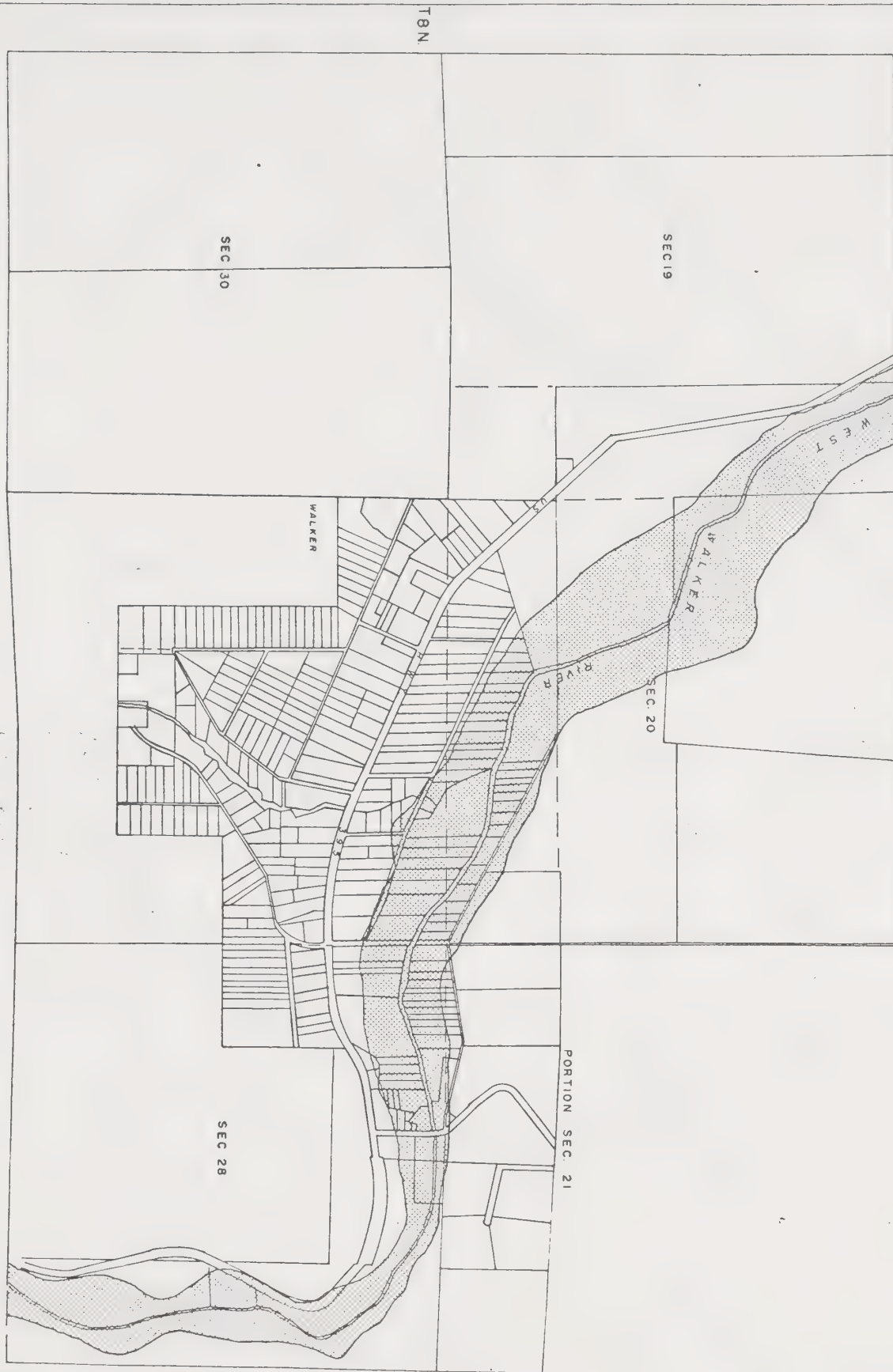
R22E | R23E



SAFETY ELEMENT
MONO COUNTY GENERAL PLAN

Fig. II-e WEST WALKER RIVER, 100 Yrs. FLOOD PLAIN

N
SCALE 1"=1,200'
SHEET 5 of 6



SAFETY ELEMENT
MONO COUNTY GENERAL PLAN

Fig. II-f WEST WALKER RIVER, 100 Yrs. FLOOD PLAIN

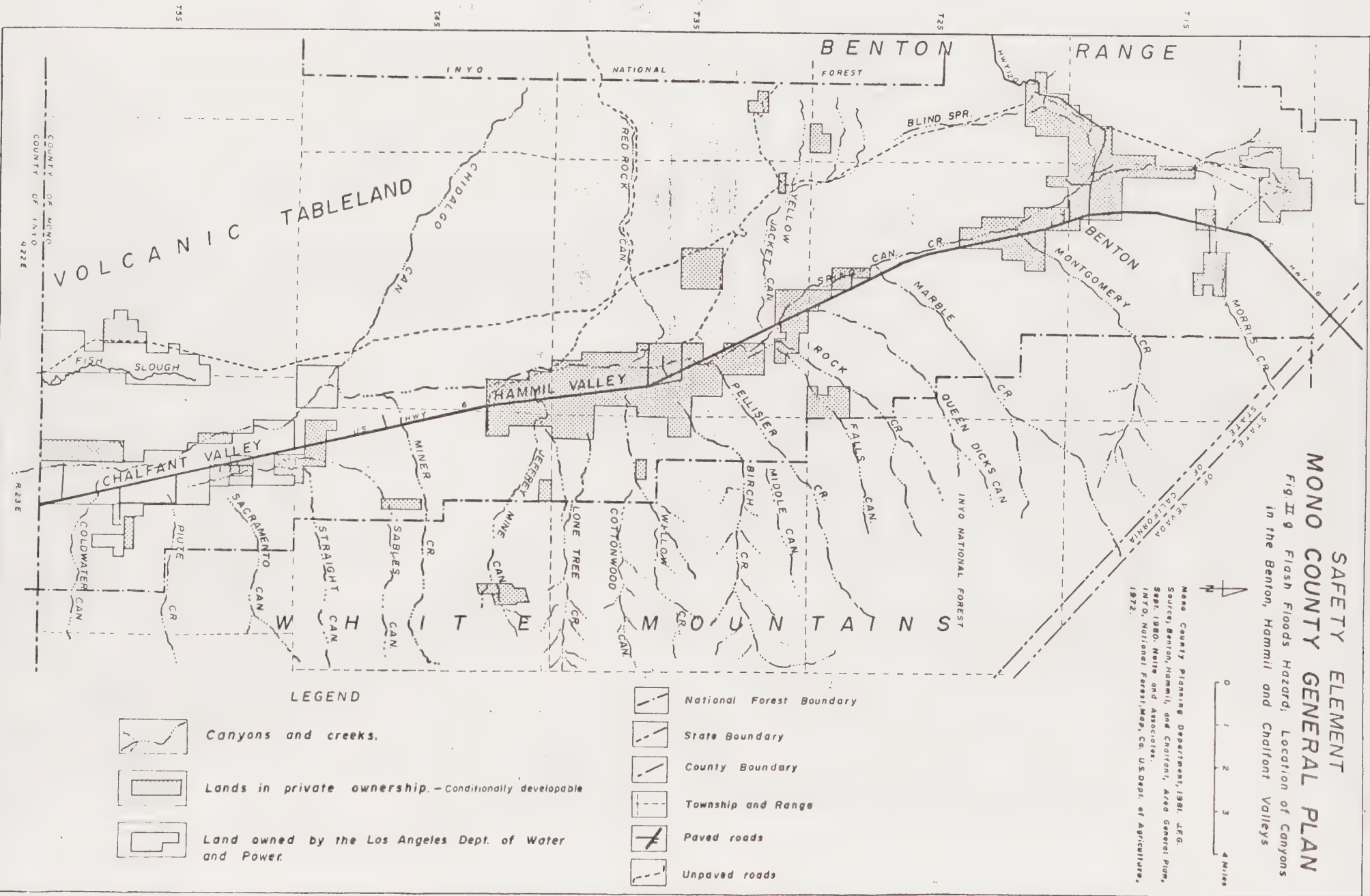


SCALE 1" = 4200'

SHEET 6 of 6

SAFETY ELEMENT MONO COUNTY GENERAL PLAN

Fig. 9 Flash Floods Hazard, Location of Canyons in the Benton, Hammil and Chalfant Valleys



Mono County Planning Department, 1981. JFG.
Source: Benton, Hammil, and Chalfant, Area General Plan,
Sept. 1980. Weite and Associates.
Inyo, National Forest, Map, Co. US Dept. of Agriculture,
1972.





Blank ledger page with a grid of 10 columns and 20 rows. The grid is defined by faint lines. The first column is wider than the others. The page is mostly empty, with some very faint, illegible markings in the lower right section.



Fig. IIIa Wildlands Fire Hazard
Fig. IIIb Communities Fire Hazard

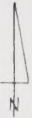
III b-Communities Fire Hazard
ISO Ratings

Topaz 8
Colleville 8
Walker 9
Bridgeport 7
Mono City 8
Lee Vining 6
June Lake 7
Mammoth Lakes 6
Old Mammoth 10
Long Valley Area 7
Swall Meadow 9
Paradise Estates 8
Benton 7
Hammil Valley 8
Chalfant 7
Oasis 9

SOURCE, INSURANCE SERVICE OFFICE, 1981.

Miles 0 2 4 6 12 24

1981 MONO COUNTY PLANNING DEPT. JPB

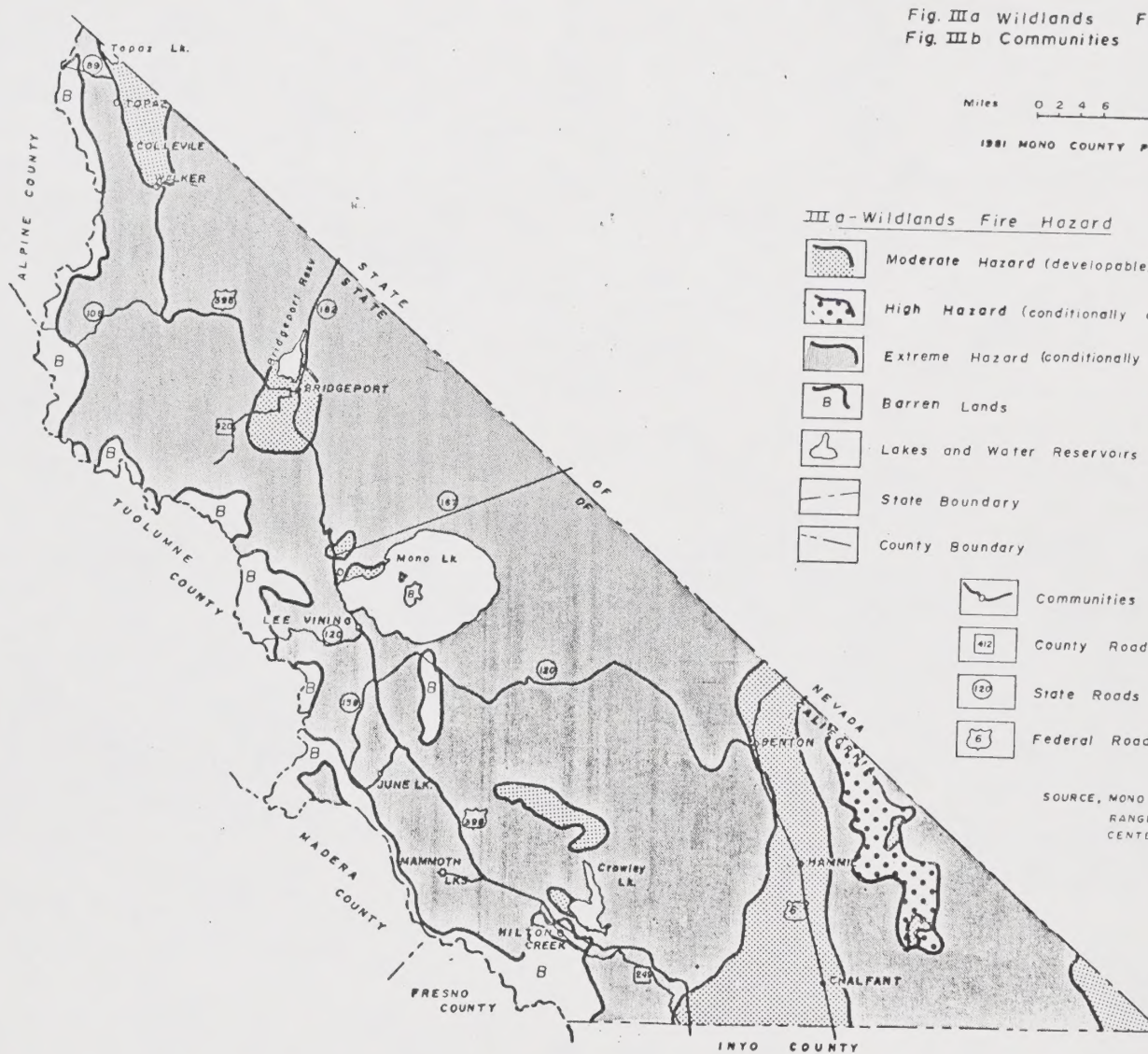


III a-Wildlands Fire Hazard

- Moderate Hazard (developable)
- High Hazard (conditionally developable)
- Extreme Hazard (conditionally developable)
- Barren Lands
- Lakes and Water Reservoirs
- State Boundary
- County Boundary

- Communities
- County Roads
- State Roads
- Federal Roads

SOURCE, MONO COUNTY PLANNING DEPT, TNF BRIDGEPORT
RANGER STATION, INTERAGENCY FIRE DISPATCH
CENTER-INF 1981.



U.C. BERKELEY LIBRARIES



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